CIRCULATING CREDIT: ITS NATURE AND RELATION TO THE PUBLIC WELFARE

Despite the fact that bank notes or deposits are used in the daily business of hundreds of millions of people, there still remain numerous misconceptions concerning the nature of these media of exchange. Furthermore, it seems safe to assert that few indeed, not only of the users but also of the bankers who issue the obligations, have any clear idea of just what effects upon the public such issues produce. According to the writer's observation, textbooks on economics rarely touch upon this last and most important phase of the problem. It therefore appears to be worth while to discuss in some detail the fundamental principles connected with bank credit.

Bank credit is used mainly for business purposes. Some loans from banks are obtained in order to purchase consumption goods, but loans for this purpose form so small a fraction of the total that they scarcely need consideration here. The bulk of credit loaned, not only by banks, but by other lenders as well, is nowadays borrowed for purposes of investment or for use in undertakings for profit making.

The successful entrepreneur normally desires to expand his business in the hope of securing greater profits. Such expansion can be accomplished only through saving or borrowing, and either process involves sacrifice. Saving means that funds must be retained in the business which might be used to satisfy the direct wants of either the individual entrepreneur or the stockholder, as the case may be. Any form of borrowing is costly, and, in some enterprises, such charges use up a very considerable share of the receipts. The railroads, for example, commonly pay out more for bond interest and for the use of leased equipment than their stockholders receive as dividends. A problem normally important to the entrepreneur is, then, that of reducing rent or interest charges to a minimum. Could these be abolished, profits would be greatly enlarged.

Business concerns are also hampered by the fact that loans fall due and the principal must then be paid. Normally, it is not difficult simply to sell a new set of notes or bonds, paying off the old debt with the proceeds; but, if the debt falls due during a period of financial stringency, it may be necessary to pay higher interest rates on the new loan and, in some cases, it is almost impossible to secure an extension of credit at any price.

Governments are great borrowers. Like corporations and individuals, they have felt the burden of paying interest charges and the trouble of selling new bonds to obtain money with which to pay off old issues. The two inconveniences long ago led some skilful statesmen to devise a method of escaping them. That method was the issue of promises to pay on demand round sums in coin, promises commonly known as paper money.

At first thought, it would seem that, for its maker, a demand note would be more inconvenient than any other kind of obligation, since there would never be any certainty as to when it would have to be met. In practice, however, circumstances are very different. A demand note, if people in general believe it will be paid on demand, has the peculiar characteristic that it is considered just as good as coin itself, and few care to take the trouble to ask for its payment, to convert it into coin. For this reason, such notes are used freely for the purchase of goods or for the payment of debts. When the government gives its note to a citizen in exchange for goods, it borrows from him the agreed value placed upon the goods, promising, in return, to pay him coin whenever he desires it. Had it promised to pay him the coin at some future date, as by giving him a bond, he would have charged the government interest. But when he can obtain payment at any minute, he is willing to loan the value of his goods without interest, for he expects quickly to receive in exchange other goods which he desires more than he does the demand note. As a matter of fact, he does not collect the proceeds of the note from the government at all, but passes the note to a third party in exchange for goods. This third party is now loaning the money value of his goods to the government, although he probably has no expectation of collecting from the government but expects, in turn, to give his claim to someone else in exchange for commodities. Thus, the government note is always circulating but may remain unpaid for years at a time. Even if paid, it may be immediately reissued. The United States government has, for example, kept in circulation since Civil War days $346,681,016 of notes commonly known as greenbacks, having thus obtained without charge for half a century the use of property of this value. Had bonds been issued to the same amount, the interest charges would by this time have amounted to over $700,000,000.

True, there has been some expense connected with keeping these notes in circulation. It has been necessary to maintain a certain

gold reserve to meet any demands for payments; and it may incidentally be noted here that the maintenance of this reserve has reduced somewhat the total gold in circulation or available for other purposes. As the old notes wear out, new ones must be printed. Nevertheless, the total expense has been but a small fraction of the seven hundred millions saved in interest. Furthermore, the notes are floated with none of the trouble connected with the sale of bond issues. It is easy, then, to see why governmental fiscal authorities have been so prone to issue paper money upon almost any pretext.

It goes without saying that business men who have watched governments borrow in this delightfully easy and inexpensive manner have sought to devise ways and means of imitating the process. The prerequisite to success in this line is the securing of implicit confidence on the part of the people in general that the notes will really be paid on demand. Such confidence is best established by actually making such payments for a considerable period of time. For several centuries now the issuance of circulating notes has been an accepted function of a particular class of concerns, the banks. The United States government guards the safety of national bank notes so carefully that such notes, being printed on the conventional type of paper used for government notes, are accepted by the average American citizen without the least question, the recipient not even observing whether they are bank notes or government issues. Such unquestioning acceptance was, however, not formerly accorded to bank notes by the American people. In the early history of the nation when "wildcat" banks were plentiful, bank notes were carefully scrutinized and were valued highly only when bearing the name of a bank that had the reputation of paying promptly. It was only after state bank notes were taxed out of existence and the national government had virtually guaranteed the national bank notes, that bank notes became a generally accepted part of our monetary supply. Since bank notes can thus without question be used to obtain a loan free of any interest charge, bankers are naturally tempted to issue them in immense quantities. The restrictions placed by the federal government upon their issue are, however, so onerous that there is little profit to the bank issuing them. As a result, they form only a fraction of the total circulating credit issued by the banks of the country. The far commoner form of circulating credit is the simple bank deposit.

To the average citizen bank deposits seem entirely different from bank notes, but in fact they are very similar. Both are promises to pay money on demand. Both may be used either to pay debts or to make purchases. The bank notes circulate more freely and, under our laws, are more adequately secured. The deposits are not so easily stolen from their owner. Were the banks to issue to depositors certificates of deposit in various denominations, these certificates being non-interest-bearing and payable to the bearer on demand, the only difference between such certificates and bank notes would be the greater reserve which the United States law requires to be kept for the redemption of the latter. Such a difference is manifestly characteristic only of a particular time and place. In general, the differences between bank notes and deposits are very slight. In the United States, deposits are loaned just as freely as bank notes. Commodities may be purchased almost as readily with deposits as with bank notes. As a matter of fact, bank deposits are the principal circulating medium of the United States, nearly all important pur·chases being made through their use.

Since bank notes and a large proportion of bank deposits are not interest bearing, and since they may be readily exchanged for commodities, a business concern which could issue as many of these as it liked would solve the troublesome problem of reducing the constant expense connected with obtaining additional equipment. The notes and deposits of an ordinary firm do not, however, circulate freely. People associate the desired promptness of payment only with banks; hence, the concern intending to get a loan free of interest can best do so by organizing a bank. In the past, private banking has often been permitted. About all that has been necessary in some states has been the printing of a few letterheads, the painting of a sign, and the installation of a teller's window, to have a full fledged private bank. The immi grant banks in some of our great cities are examples of this type which have survived beyond their day. In such private banks, depositors turn over their money, are given deposit receipts, and the money is used in the business of the proprietor, a free loan thus being obtained. Checks on such a bank, however, are not likely to be accepted freely, hence the use of this ultra simple system has distinct limitations.

Modern banking laws have tended to abolish such types of private banks. In most states, at present, banking can be con-

ducted by duly authorized corporations only, and rigid inspection is the rule. As a result, the modern firm desiring to profit by the use of circulating credit must normally resort to devices less crude than the installation of private banks of the variety just mentioned; but this does not by any means indicate that they have eschewed banking as a method of obtaining free credit. Nowadays, the usual plan is to organize a subsidiary banking corporation designed primarily to furnish loans to the organizers. Farmers' banks, department store banks, and the great bank connected with the Standard Oil interests are all examples of this type. The entrepreneur gives his note to the bank in exchange for a deposit. He checks on the deposit to purchase the equipment desired. The interest which he pays to the bank comes back to him as dividends from the bank, since he is the owner. Practically, he has expanded his business without any real outlay for interest. He has, in a small way, imitated the achievements of the government in substituting circulating for ordinary credit and has thereby likewise obtained the use of valuable property at a cost far below the normal interest charge for a loan of equal value.

The majority of business men are either not wise enough or not so situated that they can employ this clever device of circulating credit to reduce their charges for loans. The utilization of this plan of getting something for nothing has, therefore, largely been taken over by a specialized class, the bankers. And banks, as a whole, do secure an enormous tribute from the public. The right to loan and reloan a million dollars for an endless period is practically equivalent to the ownership of a million dollars. True, such a right is not obtained free. The bank has heavy expense for personnel. Custom demands that it provide an elaborate building in which to transact its business. It must keep up legal or necessary reserves, and, in order to do this, it must ordinarily pay interest to certain persons who bring it cash or claims therefor to place on deposit. None of these charges is burdensome if the bank does a large business. The interest it pays for deposits is less of a drain than at first might be thought, for much cash is obtained from deposits on small checking accounts and these accounts usually draw no interest. Besides, one dollar of actual cash is an ample reserve upon which to base four to eight dollars of loans.

On the whole, however, banks probably are little more profitable than concerns of a different nature. This fact by no means

proves that they do not receive great quantities of income from the public for which they pay nothing directly. It only shows that such institutions multiply until the share of free income going to each is no longer more than sufficient to pay operating expenses and a reasonable profit.

This principle may be illustrated by a somewhat parallel case. Suppose the Treasury Department were to announce that, each day, one million dollars in gold would be tossed into the street from the balcony of the Treasury Building. To provide this gold would obviously be a drain upon the taxpayers of the nation. The recipients would evidently not earn it but would receive it as a free gift. But would this imply that picking up gold eagles around the Treasury Building would be a lucrative occupation? Far from it. Such vast crowds would gather that one's chance of getting a gold piece would become slight. He would need to be a strong man who could pick up enough gold in that way to pay his living expenses in Washington.

In an exactly similar fashion, the banks multiply, divide up custom, and frequently reduce interest rates until most of them receive only a small profit above operating expenses, though doubtless a few of the strong ones reap enormous rewards.

Even though banking may be no more profitable than other businesses, the fact still remains that banks receive their income from what virtually amounts to a public endowment. Few, however, would be hardy enough to assert that an efficient banking system is not an institution well worthy of such an endowment. We can scarcely imagine present-day trade and commerce without banks. The convenience which they furnish as places where money may be exchanged for any kind or denomination desired, where transfers of credit to other places may be arranged, where funds may be left for safe keeping, and where short-term loans may be readily negotiated, is felt by almost every one. Banks constitute one of the pillars of modern business.

While, however, banks with their system of deposits and circulating credit must be regarded as prime necessities, it by no means follows that the more banks and the more deposits the better for the public in general. It is not clear that fifty banks in the business district of a city always serve the public better than five. It is not necessarily true that a doubling of loans and deposits means a doubling, or, in fact, any increase whatever, of national prosperity. When the bank loans of the nation are increased by

a billion dollars, it is equivalent to saying that some one has virtually contributed to the banks a billion dollars, less collection charges. The *Statistical Abstract of the United States* shows that from 1913 to 1918 population increased 8 per cent. What happened to banking operations during the same period? From the same source, we learn that individual deposits in banks amounted to 17 billions in 1913 and 28 billions of dollars in 1918, an increase of 60 per cent. Loans increased in virtually the same proportion. The banks, then, were nominally richer at the end of this five-year period by some 11 billions of dollars. Who contributed this enormous fund? What was the effect upon the public?

If other things are unchanged, prices tend to vary in proportion to the quantity of circulating medium. Suppose that in the United States this should total 10 billions of dollars, including both money and deposits. Suppose also that the private debts of the country amounted to 100 billions of dollars. If, then, the banks expand their notes and deposits by one billion dollars, prices will rise 10 per cent. This rise will reduce the value of the obligations of debtors to creditors by 10 billions of dollars, the gain of the debtors being exactly equivalent to the loss of the debtors. Employers will delay a little while in increasing wages and a longer time in raising salaries. This delay will enable the employers to amass billions at the expense of the employees. Again, the gains of the employers exactly equal the losses of the employees. Owners of the 10 billions of dollars of money and bank deposits will find that their holdings have declined in purchasing power 10 per cent or one billion dollars; and this is the exact amount that the bank deposits increased. Evidently, then, every expansion of bank credit is at the expense of the owners of money or of bank deposits. A large share of the losses of the depositors in the bank will be offset by the gains of the borrowers from the bank. As the price level rises, they will need to sell a lessened quantity of goods in order to pay off their loans. As bank deposits are largely created through borrowing, the depositors and borrowers are very frequently the same persons, and the gains and losses will in their cases be cancelled. Owners of actual money and depositors who are not borrowers will, however, not have their losses offset in this manner. The diminution in their ability to buy goods will be real and not merely nominal.

The money gains of the banks through the increases in deposits

are largely offset by the decline in the purchasing power of money. Since, however, the bank deposits do not constitute the entire circulation of the country, and since the price level varies in proportion to the entire circulation and not to deposits only, it follows that, if the supply of actual money remains constant, a 10 per cent increase in deposits will produce an increase in the price level of something less than 10 per cent. Since the increase in deposits will consist primarily not of more accounts but simply of more dollars per account, clerical expenses will increase but slightly and the banks will make a real as well as a nominal gain from the policy of inflation; but, in a country like the United States where bank deposits constitute the bulk of the circulating medium, the real gain will be only a fraction of the increase in deposits as measured in dollars of current value. The fact remains, however, that any policy which makes deposits in general multiply redounds to the advantage of the banks but diminishes the value of the credits of those depositors who are not borrowers but who have placed in the bank actual money or claims therefor.

Such is the broad view of the situation. Individual banks may either gain or lose during a period of deposit expansion. If interest rates remain constant, any bank that fails to increase its loans as rapidly as the price level rises undergoes a net loss, while any bank that increases the amount loaned at a rate more rapid than the rise of prices in general increases its profits as measured in purchasing power. If the money supply remains constant, the price rise will not keep pace with the deposit expansion, hence the banking business as a whole will, as a rule, profit by an inflation of circulating profit.

It is the boast of the founders of the federal reserve system that it has made our dollars more efficient; in other words, that each dollar now does more money work than formerly. Of this fact there can be little doubt. According to the *Statistical Abstract of the United States* the ratio of cash to net deposits in the national banks declined from 12.7 in 1913 to 3.5 in 1918, and the per cent of reserves to deposits diminished from 24.29 in 1916 to 10.65 in 1918. These figures appear thoroughly to support the claim just mentioned. Most economists seem to have accepted without protest the view that an increase in dollar efficiency is a good thing for every one. At one time, also, no one doubted that the earth was flat; but when the facts were studied, the belief was found to be entirely without foundation. What is the effect

of an increase in dollar efficiency? The matter may be worthy of investigation.

The Bureau of Labor index of wholesale prices increased from 97 in December, 1914, to about 247 in March, 1919, a rise of 150 points. Retail prices have increased to a somewhat less extent on account of the delay of rents and a few other customary prices in responding fully to the new monetary conditions. A moderate estimate would be to assume that dollars, since 1914, have lost 55 per cent of their purchasing power at that date. The debts owed by individuals and corporations to others than banks amounted in 1914 to not less than 30 billions of dollars. The effect of the currency inflation, which has consisted principally of increase in dollar efficiency, has been to confiscate some 16 billions of dollars' worth of the property of the creditors (at 1914 prices), and turn it over to the debtors as a gift. Sundry other billions have been transferred from the payrolls to the bank accounts of employers; and the owners in 1914 of the 22 billions of bank deposits and money have found their ability to buy goods reduced by over one half, or by about 12 billions, but this loss is partly cancelled by the gains of the borrowing depositors. A moderate estimate, however, of the value of the property which has thus been transferred without any value given in return is 25 billions of dollars at the 1914 price level or 60 billions at the price level of 1920. The transfer has been based on a policy neither more nor less fair and equitable than would be the seizure of the property of all blue-eyed persons and its immediate conveyance to those inhabitants possessing brown eyes, or the robbery of the persons whose names begin with the last half of the alphabet for the benefit of those whose initials chance to be in the A to M class.

The Federal Reserve act was enacted chiefly as a safeguard against panics. Even its ardent supporters hardly contend that it will entirely prevent the periodical readjustments in business known as depressions. They do, however, insist that it renders a money panic practically impossible. But, granting that this contention is correct, it by no means follows that the new system is to be commended. The principal evil of a money panic is that it unjustly transfers much wealth from one person to another. It is, however, highly improbable that all the panics in the history of the nation have together caused the unwarranted transfer of more than a small fraction of the 60 billions of dollars' worth of

goods the ownership of which has been arbitrarily shifted by the workings of the Federal Reserve act and its amendments. It is idle to contend that such inflation is a product of war conditions, for the inflation goes on apace with industry back in its normal grooves, and there is a strong possibility that the expansion of circulating credit may even proceed very much further with a continuation and extension of the injustice already experienced. The fact seems to be that through failure to appreciate the possibilities of credit expansion which lurked therein and the damage that might be wrought in that way, the authors of the Federal Reserve act and its amendments completely failed to safeguard the public against the crying evils of an entirely unnecessary orgy of inflation and that the effects of this oversight have proved little short of disastrous to millions of Americans.

The chief present limit upon the loaning capacity of member banks lies in the fact that would-be borrowers must back their demands by drawing upon the available supply of sound security—a supply which has rather definite bounds. The law, as it stands, places no restrictions upon the expansion of the circulating medium except more or less optional requirements that certain reserves are to be kept against note issues and deposits. Practically, the monetary fate of the country rests with the Federal Reserve Board, a body which thus far has been entirely unable to resist the pleas of bankers and entrepreneurs for "easy money." The system, as established, has proved to be merely a new model producing results very similar to those yielded by its numerous predecessors of the past—the cheap money devices which have so often dominated the financial policies of nations and always with most untoward results. Had Congress wisely refrained from reducing the legal reserve requirements of member banks, had it required an absolute reserve against deposits of 100 per cent instead of a tentative reserve of 35 per cent, and had it fixed a minimum rediscount rate of say 12 per cent, the currency would have been made genuinely elastic instead of merely expansible, and the nation would have been spared the long train of ills necessarily attendant upon an inflation policy. While it will be impossible to repair most of the damage already wrought, steps should at least be taken to transform the federal reserve system from its present status as a mechanism for inflation into that beneficent regulator of credit which its originators sought to establish, thus preventing in the future an extension or repetition

of the policy which has upset the whole financial structure of the nation and has changed property rights from realities into phantoms.

When one considers the furore created when burglars now and then succeed in appropriating the contents of a single safe, it seems strange that the legal filching of a sum amounting to thousands of dollars from each of millions of families has been accomplished with relatively little protest against the inflation process. This is partly explicable because many of the influential people are both debtors and creditors and have gained on one account what they have lost on the other. More important still, though, is the fact that most people are so accustomed to thinking in terms of dollars that they absolutely fail to comprehend what has really happened. They complain bitterly enough about the higher prices of the things they buy, but ascribe the rise to every imaginable cause except the real one. They absolutely fail, also, to realize that their holdings of bonds and insurance policies, issued by companies that are still sound and still promise payment of the same number of dollars, have really depreciated over one half in value. Since, for this class, ignorance is bliss, it is perhaps well that comprehension is not thrust upon them.

It is, however, important that thinking people, and especially our statesmen and legislators, should be made to realize that every measure which increases the efficiency of the dollar or, in other words, inflates bank deposits, at the same time levies a heavy tax upon all creditors for the benefit of the debtors, upon all salaried men for the benefit of their employers, and upon all owners of money or bank deposits for the benefit of the bankers and the borrowers from the banks. Any decision to establish new banking systems, to diminish legal reserves, or to adopt other measures which will have the effect of increasing deposits faster than the physical growth of business, should be made with eyes wide open as to the consequences involved.

For many years, we have been troubled by the effects of inflation. In the near future, deflation is likely to be the rule and its effects will loom large in the public eye. They are exactly the opposite of the effects of inflation. Deflation will take from the debtors and give to the creditors; take from the bankers and borrowers from banks and give to the depositors in banks; take from the employers and give to their salaried employees. Unfortunately, however, deflation will not mean equitable restoration. The

creditors of tomorrow who gain will not be the creditors of yesterday who lost. The depositors whose deposits increase in value will not be the ones whose deposits shrunk during the period of inflation. Were prices to return to the 1914 level, some would find their losses just made good; others would gain more than they lost or lose more than they gained; still others would have lost both during the rise and during the fall of prices; while a few would have gained by both changes. It is safe to say that those who obtained complete reparation and nothing more would constitute only a small minority of the whole. Both inflation and deflation are unjust to the extreme and neither will ever undo more than a fraction of the evil wrought by the other. It is, then, not surprising that increases or decreases in the volume of circulating credit, with their consequent changes in the price level and shifting of wealth between various classes of the population, have some very baneful effects upon the morale and habits of the people. The fact has long been remarked that unstable government tends to reduce the citizenry to poverty because it is worse than useless to save when savings merely make one a shining mark for banditti. The rapacious tax-farming systems of oriental despotisms which result in accumulated property being quickly seized by the tax-gatherers have produced similar effects. In those mining regions where fortunes are largely made through chance, the men are notoriously thriftless. Similarly, when an inflation policy ruthlessly confiscates from the most conservative classes half of their savings, for example such claim as bonds, savings bank deposits, and insurance policies (representing often the accumulations of a lifetime) and turns these savings into the coffers of men who have in no way merited the gain, who may, in fact, be merely lucky speculators, one cannot well expect those who suffer the loss or who witness the spectacle to continue much longer to be vigorous advocates of thrift. The salaried employee who not only sees his advancement, won by years of steady effort, nullified, but his income in purchasing power actually reduced below what it was when he was a novice in the work, can scarcely be expected to teach his children the advantages of persistent industry. The more ignorant worker who finds the dollars of his wage shrinking day by day through forces beyond his comprehension cannot be blamed too severely if he turns bolshevik.

Such an unreasoning system of looting from one class to enrich another can only idealize the devotees of the god of chance. Logic will apparently advise every ambitious youth to follow in the path

of the lucky speculator rather than either to waste his time in arduous toil or to sacrifice present pleasures in the fatuous hope of accumulating a future competence. And, under such conditions, who can hope for opposing advice to prevail?

It is a commonly taught principle of economics that gambling is anti-social not only because it tends to discredit industry as a method of making a living but because the dollars gained in gambling have less utility than the dollars lost. "Come easy, go easy" is a proverb verified by the experience or observation of almost every one. It is, then, a certainty that, in very many cases, the chance gains thrown into the laps of debtors and entrepreneurs by an inflation policy over which they have no control will yield to them less of real service than will the dollars earned by honest toil or exceptional skill in the game of business.

Any system which divorces reward from effort and which heightens greatly the chance factors in the field of business and investment is certain ultimately to lessen production and to increase discontent. The contraction period lasting from 1873 to 1897 created great unrest among the farmers of the Mississippi Valley. The inflation of the currency and bank deposits continuing since 1914 has done much to drive laborers to look to radical and even revolutionary measures for relief. Increasing dollar efficiency has too often resulted in greatly diminished human efficiency. The need for a stable dollar can scarcely be overemphasized, and this stability can be more easily attained if measures are taken to make the rate of increase of deposit currency correspond roughly to the growth in the physical volume of business.

It has been shown that a system of circulating credit may work great changes in the price level and affect materially the well-being of most of the people of a nation. Does it also play any important part in determining the interest rate?

One school of economists would contend that any effect of forces of this type must be purely transitory—that any permanent effect must result only from forces influencing the psychology of the people of the nation. Another school would lay emphasis wholly upon the supply of and demand for certain types of goods. But here is a system purely financial in its nature. Can it make interest rates permanently higher or lower than they would otherwise be?

As a matter of fact, *the* interest rate is a myth. Each specific kind of loan has its own interest rate, and many such interest rates often exist side by side at the same time. They do influence

each other to some extent because one may be substituted for the other. The relationship, for example, of the market rate for time loans to that for call loans is exactly the same as that of the price of corn to the price of oats; each acts upon the other, and yet each is largely independent of the other.

Every interest rate is determined in its own loan market by the interaction of the subjective valuations of would-be lenders with the subjective valuations of prospective borrowers. Given the demand and supply of each individual on the market, the market rate may be determined by the usual simple process of ascertaining at what rate supply and demand are equal. In certain loan markets, the supply of loanable funds is little affected by the offerings of banks; in others, practically all loans are secured from banks; while, in still others, bank credit and private funds are both important sources of supply.

Students of interest rates have frequently appeared to assume that the demand for loans is equivalent to a desire plus a willingness to promise repayment. In the business world this is far from being the case, for the first question asked of the would-be borrower is, "What security can you furnish?" This need of security limits sharply the demand in most markets.

Let us consider the case of a market in which the bank is now the leading source of credit—namely, the market for call loans in New York City. Let us assume that banks had not entered this field and that the entire supply of such loans was furnished by individuals. Under normal circumstances, the rate would need to be enough higher than that for long-time loans to pay for the constant trouble of renewals. The rate for long-time loans would, of course, need to be high enough to induce saving, in other words, to overbalance the general preference for present rather than for future goods. If the normal rate for safe mortgages were 5 per cent, no one would expect the call rate to be less than that figure; in fact one would be surprised if it remained below 7 or 8 per cent. But what is the actual state of affairs? Numerous banks appear on the scene. New York has long been a central reserve city. Idle cash flows in readily from banks all over the country and bank reserves can, therefore, be maintained at a low cost. Banking is conducted on a large scale which reduces the clerical expense per dollar of business. The dislike of individuals for waiting appears to play but a most minor part in the supply of funds for call loans. As a result, these loans are often, for a period of several months, quoted at 2 or 3 per cent; while, at

the same time, three to six months notes or the highest grades of bonds may be yielding nearly double that interest rate. Both abstract reasoning and the observed facts seem to indicate clearly that, in this field, the supply of circulating credit does greatly lower the market rate below what it would be were no circulating credit in existence.

The great influence of circulating credit upon the call market is due to two facts: first, while practically nothing but readily marketable stocks and bonds will be accepted as security for such loans, the supply of such stocks and bonds available to secure loans is definitely limited; second, the large supply of cash flowing to New York for reserves has enabled the banks to issue circulating credit in tremendous amounts. In a loan market, therefore, in which the potential supply is enormous and the potential demand is strictly limited, it is not surprising that the rate is frequently low.

It is easy to conceive of a condition in the market for any other type of loans under which circulating credit might play the dominant rôle. Whenever the restrictions upon borrowing are made severe enough so that the banking capacity is more than ample to supply the entire actual demand, while the loans desired are of the type suitable for banks to handle, the bank rate may fall materially below the rate at which loans could be secured elsewhere. There seems every reason to believe that, in such instances, the lower limit of the bank interest rate is often determined primarily by the cost of banking and only to a slight degree by the rate at which individuals are willing to save.

If banks are to issue circulating credit successfully, they must maintain adequate reserves. These largely consist of the deposits of cash by individuals. Part of this cash is held for convenience as a basis of checking accounts. The smaller deposits of this type usually draw no interest. Banks do, however, normally pay interest on most time deposits, and such deposits are thereby withdrawn from the field of private loans, lessening to that extent the supply of private loans offered on the market. However, every dollar of money so held enables the bank to offer credit to the extent of six or eight dollars. Circulating credit, therefore, multiplies private credit many fold. The 4 per cent currently paid for deposits dwindles, therefore, to a cost to the bank of considerably less than 1 per cent on the deposits which it loans out. The expense of maintaining reserves forms, then, but a fraction of the bank's general operating costs. It is only through

its influence upon this small item that individual time preference affects in any way the supply price of funds available for bank loans.

When the effective demand for loans of any type expands beyond the supplying capacity of the banks, then the supply curve is derived from a combination of bank costs of operation and the subjective rates of individuals, the latter being affected by such psychic phenomena as optimism or pessimism concerning business opportunities, personal future prospects, dislike for waiting, etc. The larger the effective demand in proportion to banking capacity, the more will the subjective loaning rates of individuals come to dominate the market. If banks raise their rates very high, saving on the part of individuals will increase rapidly. This actual or potential competition on the part of individuals sets an effective upper limit to the rates which banks may charge for the use of circulating credit.

The expansion of circulating credit has been shown to be one of the chief forces controlling the price level. Every expansion of loaning power naturally tends to reduce the interest rate. However, when bank deposits come to be the chief medium of exchange, the price level rises almost as rapidly as does the increase in the volume of deposits. As the price level goes up, the borrower must proportionately increase the sum which he needs to borrow. Thus, the demand for loans tends to rise also. It appears, therefore, that if, in any nation, bank deposits constitute a small share of the circulating medium, an increase in the loaning capacity of banks will tend to lower interest rates materially; while, in a nation in which bank deposits constitute the bulk of the medium of exchange, an increase in the loaning capacity of banks means only a slight decline in the rates of interest on bank loans. The United States evidently falls in the last-mentioned class of nations. In this country, therefore, while inflation of circulating credit causes enormous gains to those under contract to pay definite sums of money and causes equal losses to the holders of such obligations, it appears that, after the inflation has made its effect felt on the price level, those persons then wishing to borrow will find interest rates lowered only slightly by the inflation process.

The statements just made apply to a deposit inflation affecting generally the banking system of the nation. It is evident that, in any limited field, the establishment of new banks or the reduction of the legal requirements for reserves might easily enable the banks to treble their loaning capacity. Multiplying this limited

class of loans by three would not, however, affect in any noticeable degree the price level of the nation, but, unless the increase in loaning capacity should be accompanied by a correspondingly increased demand for loans, a great reduction in interest rates would, of course, be the outcome. If, for any reason, the effective demand for loans should happen to keep pace with the expansion of loaning power, thus maintaining interest rates, the extra interest received would represent real profits to the bank; for, since the price level would remain practically unchanged, each dollar of profit would have approximately the same purchasing power as it did before the expansion of loans took place. The interests of an individual bank are, therefore, most furthered by expansion of its own loaning power while that of banks in general remains stationary, rather than by a widespread inflation of banking credit. However, if such a universal expansion is taking place, it behooves each bank to increase its loans proportionately, or else the declining purchasing power of the dollar will cause its real profits to diminish. Such has been the position of the banks of this country ever since the passage of the Federal Reserve act with its provisions making possible the inflation of circulating credit.

The conclusions of this study may be summarized as follows:

1. Circulating credit is a device successfully used for obtaining a loan without the necessity of paying interest therefor. This is the source of banking profits.

2. The principal limiting factor in the market supply of loans of circulating credit is not the time preference of individuals but rather the cost of banking. Individual time preference affects only the expense of maintaining reserves which is a relatively small part of the bank's running expenses.

3. The reduction in the legal reserve requirements of banks, resulting in increased dollar efficiency, has been largely responsible for the unjust transfer from creditors to debtors and from wage-earners to entrepreneurs of some 60 billions of dollars on the basis of the 1920 price level. This has been a leading cause of the recent social unrest, and has produced results much more serious than those occasioned by a panic.

4. Bank reserves and deposits as well as the supply of actual money are in grave need of stabilization.

5. The recent expansion of circulating credit has not resulted in any permanent marked lowering of interest rates on bank loans.

WILLFORD I. KING.